



# *Sample Maintenance Record Projects and Sample Entries for Pilots and Technicians*



For Training Purposes Only

Rev:02/07/02

- **Aircraft maintenance recording requirements “Note”:**
- The objective of this handout is to familiarize Pilots and Technicians with the regulatory requirements of FAR’s Part 43.9, 43.11, &
- FAR Part 91.417
- Part 43 & 91 should both be addressed when making record entries.
- Part 43 was **not** written for **Mechanics** only!
- Part 91 was **not** written for **Pilots** only!

# Airworthiness Certificate

## Block 6. TERMS AND CONDITIONS

Unless sooner surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator, this airworthiness certificate is **effective as long as the maintenance, preventive maintenance, and alterations are performed in accordance with Parts 21, 43, and 91 of the Federal Aviation Regulations, as appropriate, and the aircraft is registered in the United States.**

UNITED STATES OF AMERICA DEPARTMENT OF TRANSPORTATION-FEDERAL AVIATION ADMINISTRATION <b>STANDARD AIRWORTHINESS CERTIFICATE</b>			
1. NATIONALITY AND REGISTRATION MARKS	2. MANUFACTURER AND MODEL	3. AIRCRAFT SERIAL NUMBER	4. CATEGORY
5. AUTHORITY AND BASIS FOR ISSUANCE  <small>This airworthiness certificate is issued pursuant to the Federal Aviation Act of 1958 and certifies that as of the date of issuance, the aircraft to which issued has been inspected and found to conform to the type certificate therefor, to be in condition for safe operation, and has been shown to meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by annex 8 to the Convention on International Civil Aviation, except as noted herein. Exceptions:</small>			
<h1>VOID</h1>			
6. TERMS AND CONDITIONS  <small>Unless sooner surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator, this airworthiness certificate is effective as long as the maintenance, preventive maintenance, and alterations are performed in accordance with Parts 21, 43, and 91 of the Federal Aviation Regulations, as appropriate, and the aircraft is registered in the United States.</small>			
DATE OF ISSUANCE	FAA REPRESENTATIVE	DESIGNATION NUMBER	
<small>Any alteration, reproduction, or misuse of this certificate may be punishable by a fine not exceeding \$1,000, or imprisonment not exceeding 3 years, or both. THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE FEDERAL AVIATION REGULATIONS.</small>			
FAA Form 8100-2			

**FAR 43.9,11 & 91.417**

***To meet Regulatory Requirements,  
The Typical  
Record Entry Must Include***

- ❶ A description** (or reference to data acceptable to the Administrator) of the work performed.
- ❷ The date of completion**
- ❸ Total Time in Service of Aircraft, Engine, Propeller or Rotor**

**Sec. 43.9** Content, form, and disposition of maintenance, preventive maintenance, rebuilding, and alteration records

- (1) A description (or reference to data acceptable to the Administrator) of work performed
- (2) The date of completion of the work performed.
- (3) The name of the person performing the work if other than the person specified in paragraph (a) (4) of this section.
- (4) The signature constitutes the approval for return to service only for the work performed.

**Sec. 43.11** Content, form, and disposition of records for inspections

- (1) The type of inspection and a brief description of the extent of the inspection.
- (2) The date of the inspection and aircraft total time in service.
- (3) The signature, the certificate number, and kind of certificate held by the person approving or disapproving for return to service the aircraft, airframe, aircraft engine, propeller, appliance, component part, or portions thereof.

**Sec. 91.417** Maintenance records.

- (i) A description (or reference to data acceptable to the Administrator) of the work performed; and
  - (ii) The date of completion of the work performed; and
  - (iii) The signature, and certificate number of the person approving the aircraft for return to service.
- (2) Records containing the following information:
- (i) The total time in service of the airframe, each engine, each propeller, and each rotor.

④ The type of inspection and a brief description of the extent of the inspection

⑤ **Your signature, certificate number, and kind of certificate.**

**"NOTE"**

Signature constitutes approval for Return to Service.

**Sec. 43.11** Content, form, and disposition of records for inspections conducted under Parts 91 and 125 and Secs. 135.411(a)(1) and 135.419 of this chapter.

Maintenance record entries. The person approving or disapproving for return to service an aircraft, airframe, aircraft engine, propeller, appliance, or component part after any inspection performed in accordance with Part 91, 123, 125, Sec. 135.411(a)(1), or Sec. 135.419 shall make an entry in the maintenance record of that equipment containing the following information:

- (1) The type of inspection and a brief description of the extent of the inspection.
- (2) The date of the inspection and aircraft total time in service.
- (3) The signature, the certificate number, and kind of certificate held by the person approving or disapproving for return to service the aircraft, airframe, aircraft engine, propeller, appliance, component part, or portions thereof.
- (4) Except for progressive inspections, if the aircraft is found to be airworthy and approved for return to service, the following or a similarly worded statement--"I certify that this aircraft has been inspected in accordance with (insert type) inspection and was determined to be in airworthy condition."

## ***KIND of CERTIFICATE***

### **Example:**

**Private Pilot ..... PP 123456789**

**Commercial Pilot.... CP 123456789**

**ATP ..... ATP123456789**

**A&P .....A&P 123456789**

**IA..... IA123456789**

**Sec. 43.9** Content, form, and disposition of maintenance, preventive maintenance, rebuilding, and alteration records

(4) If the work performed on the aircraft, airframe, aircraft engine, propeller, appliance, or component part has been performed satisfactorily, the **signature, certificate number, and kind of certificate held by the person approving the work.**

**The signature constitutes the approval for return to service only for the work performed.** In addition to the entry required by this paragraph, major repairs and major alterations shall be entered on a form, and the form disposed of, in the manner prescribed in Appendix B, by the person performing the work.

**Sec. 91.417** Maintenance records.

(1) Records of the maintenance, preventive maintenance, and alteration and records of inspections to include--

(i) **A description (or reference to data acceptable to the Administrator) of the work performed; and**

(ii) **The date of completion of the work performed; and**

(iii) **The signature, and certificate number of the person approving the aircraft for return to service.**

(2) Records containing the following information:

(i) **The total time in service of the airframe, each engine, each propeller, and each rotor.**

## Maintenance Scenario

### FAR 43.9 & 91.417

Aircraft Make: Cessna

Date: 01/21/98

Model: 172M

TAT: 4,625 Hrs

Serial No. 18454

Eng: SMOH: 962 Hrs

Eng TT: 2,762 Hrs

Prop: TT. 962 Hrs

Cessna 172 Service Manual is Available, including Summary of Airworthiness Directives and AC 43.13-1A, &2A.

Make a Typical log book entry indicating the replacement of the Right main tire, and typical return to service.

**“Note”** Appendix A of FAR part 43 states that replacement of tires is considered to be preventive maintenance.

You are a Certificated Mechanic

A&P 123456789 or Pilot/Owner

PVT Pilot Cert # 123456789



## AIRFRAME MAINTENANCE LOG BOOK

AIRCRAFT MAINTENANCE RECORD		
DATE	DESCRIPTION OF WORK PERFORMED	SIGNATURE

PAGE 22

# Airframe Log Book

DATE	AIRCRAFT MAINTENANCE RECORD DESCRIPTION OF WORK PERFORMED	SIGNATURE
<b>01/21/98</b>		
<b>TAT. 4,625</b>	<b>Replaced Rt. Main landing gear Tire</b> with Goodyear	
<b>TachTime</b> (Optional)	600X6, 6 ply rating .	
	Followed procedures of Cessna <b>Service Manual</b> for	
	replacement of tire. Sec:.....	
	Par:.....etc.	
		<b>Ima B. Good</b>
		Ima B. Good
		<b>PP #123456789</b>

**Sec. 43.9** Content, form, and disposition of maintenance, preventive maintenance, rebuilding, and alteration records

(1) A description (or reference to data acceptable to the Administrator) of work performed.

(2) The date of completion of the work performed.

(3) The name of the person performing the work if other than the person specified in paragraph (a) (4) of this section.

(4) The signature constitutes the approval for return to service only for the work performed.

**Sec. 91.417** Maintenance records.

(a) (1) **Records of the maintenance, preventive maintenance, and alteration**  
The records must include--

(i) A description (or reference to data acceptable to the Administrator) of the work performed; and

(ii) The date of completion of the work performed; and

(iii) The signature, and certificate number of the person approving the aircraft for return to service.

(2) Records containing the following information:

(i) The total time in service of the airframe, each engine, each propeller, and each rotor.

## Maintenance Scenario

### FAR 43.9, & FAR 91.417

Aircraft Make: Cessna

Model: 172M

Serial No. 18454

**Eng TT: 2,762 Hrs**

**Date: 01/21/98**

**TAT: 4,625 Hrs**

**Eng: SMOH: 962 Hrs**

Prop: TT. 962 Hrs

Cessna 172, and Lycoming **Service Manual** is Available, and AC 43.13-1A, .

Make a Typical log book entry indicating the **replacement of the Spark Plugs**, and typical return to service.

**You are a Certificated Pilot, Mechanic,**  
or Repairman  
**Cert #123456789**

- Items in **Red** will be required entries for the purpose of this exercise.
- Pilots and mechanics should make record entries in the same manner.

## POWERPLANT MAINTENANCE LOG BOOK



ENGINE MAINTENANCE RECORD		
DATE	DESCRIPTION OF WORK PERFORMED	SIGNATURE



## POWERPLANT MAINTENANCE LOG BOOK



ENGINE MAINTENANCE RECORD		
DATE	DESCRIPTION OF WORK PERFORMED	SIGNATURE
<b>01/21/98</b>	Removed and <b>Replaced all spark plugs</b> , installed 8	
Eng: TT:2,762Hrs	new Champion REM1234 spark plugs	
SMOH:962 Hrs	<b>in accordance with</b> Lycoming/Continental, etc.	
	<b>service instructions</b>	
Tach: 962 Hrs		<b>Ima B. Good</b>
(optional)		Ima B. Good
		<b>PP#123456789</b>

Items in red are required by 43 & 91.

Due to the problem of many signatures that are not legible; it may be necessary for many to print their name as well as sign.

Try to sell the idea of printed names.

# Maintenance Scenario

## FAR 43.9, FAR 91.417

---

Aircraft Make: Cessna	Date: 01/21/98
Model: 172M	TAT: 4,625 Hrs
Serial No. 18454	Eng: SMOH: 962 Hrs
Eng TT: 2,762 Hrs	Prop: TT. 962 Hrs

Cessna 172 Service Manual is Available, including Summary of Airworthiness Directives and AC 43.13-1B, &2A.

Make a Typical log book entry indicating the replacement of the Right main landing gear leg, ( Used Serviceable with 780 Hours Total time on replacement gear leg); and typical return to service.

You are a Certificated Mechanic  
A&P 123456789 or Repairman

10

## Airframe Log

DATE	AIRCRAFT MAINTENANCE RECORD DESCRIPTION OF WORK PERFORMED	SIGNATURE
01/21/98		
TAT. 4,625	Replaced Rt. Main landing gear leg P/N 1234	
TachTime (Optional)	with used serviceable part with total time 780 Hrs.	
	Followed procedures of Cessna Service Manual for replacement of Landing gear leg . Sec:.....	
	Par:.....etc.	
		<i>Ima B. Good</i>
		Ima B. Good A&P 123456789
		PAGE 22

Total Time of installed part

If you install a used part:

How will you determine serviceability without total time of part.

Is it bogus?

Was it in a fire, accident, Flooding?

Was it previously damaged and repaired?

“Note” By indicating the total time of the component and where it originated helps to establish that it is in fact a serviceable aircraft part. Possibly it has had Airworthiness Directives against it, or maybe it will have at a future date. The time of the component may be necessary to determine if an AD or mandatory replacement will be due at a certain time.

If a used serviceable part is installed it is important and recommended to document the part time in service.

If an AD comes out against the installed part at a latter date, You may only have scrap if you don't know the total time of the component.

Many parts have been scrapped due to inadequate records of origin and total time.

# Maintenance Scenario

## FAR 43.9, & FAR 91.417

---

Aircraft Make: Cessna	Date: 01/21/98
Model: 172M	TAT: 4,625 Hrs
Serial No. 18454	Eng: SMOH: 962 Hrs
Eng TT: 2,762 Hrs	Prop: TT. 962 Hrs

Cessna 172, and Lycoming Service Manual is Available, including Summary of Airworthiness Directives and AC 43.13-1B,&2A

---

Make a Typical log book entry indicating the replacement of the #3 Cylinder and Piston assy, with(Overhauled with serviceable tag, and 1900 Hrs TT:), and typical return to service.

You are a Certificated Mechanic  
A&P 123456789

12

# POWERPLANT MAINTENANCE LOG BOOK



ENGINE MAINTENANCE RECORD		
DATE	DESCRIPTION OF WORK PERFORMED	SIGNATURE
01/21/98	Replaced #3 Cylinder and Piston Assy	
Eng: TT:2,762Hrs	in accordance with Lycoming service manual with	
<del>SMOH:962 Hrs</del>	<del>overhauled</del> and yellow Tagged cylinder, with new	
	piston assy. per Cylinder Specialties W/O #1234	
Tach: 962 Hrs	Cyl TT: 1900 Hrs	
(optional)	Aircraft engine run accomplished .	
		Ima B. Good
		Ima B. Good
		A&P123456789
		PAGE 22

Cylinder overhaul agency and work order number added as future reference of approval etc.

Note: Cylinder total time recommended due to possible future AD's, additional service requirements etc.

# Inspection Scenario

## FAR 43.11 (1)

---

Aircraft Make: Cessna	Date: 01/21/98
Model: 172M	TAT: 4,625 Hrs
Serial No. 18454	Eng: SMOH: 962 Hrs
Eng. TT: 2,762 Hrs	Prop: TT. 962 Hrs

Cessna 172, and Lycoming Service Manual is Available, including

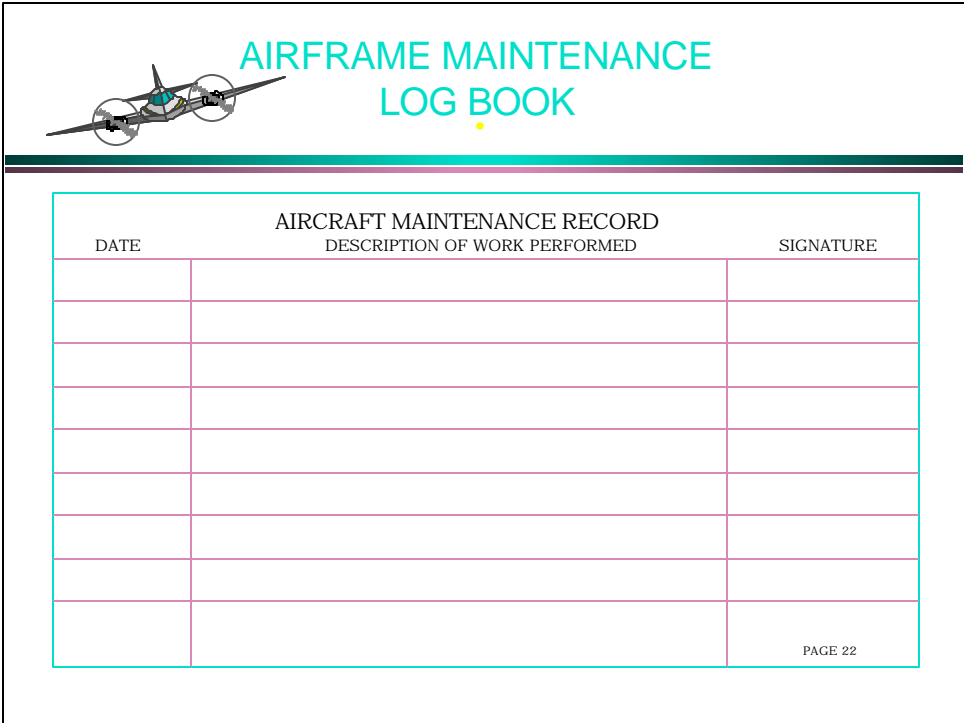
---

Summary of Airworthiness Directives and AC 43.13-1B, &2A.

**Inspection Record entry must also include:** The type of inspection and a brief description of the extent of the inspection.

Make a Typical log book entry indicating the accomplishment of  
a 100 hour Inspection and return to service.  
You are a Certificated Mechanic A&P 123456789

- **FAR 43.11 (1)**
- Inspection Record entry must also include:  
The type of inspection and a brief description of the extent of the inspection



Aircraft Maintenance Log / Powerplant Log / and Propeller Log		
OPTIONAL →	AIRCRAFT MAINTENANCE RECORD	
	DATE	DESCRIPTION OF WORK PERFORMED
	01/21/98	I Certify that this Aircraft/Engine/or Prop has been Inspected in accordance with a 100 hour Inspection and was determined to be in airworthy condition.
	Tach 962hrs.	
	TAT:4,625	Checked and complied with all applicable ADs as listed in back of log per AC 43-9B Appendix 1
	Eng. TT: 2,762Hrs SMOH:962Hrs Prop TT: 962Hrs 962 since new	Ima B. Good PAGE 22 Ima B. Good A&P123456789

“NOTE” Whether performing an inspection on the Airframe, Powerplant or propeller, you must record the total time. The above record entry may be Generic for any of the 3 components. Time since overhaul will not be required in all cases.

**Sec. 43.11 Content, form, and disposition of records for inspections**

The person approving or disapproving for return to service an aircraft, airframe, aircraft engine, propeller, appliance, or component part after any inspection performed in accordance with Part 91, 123, 125, Sec. 135.411(a)(1), or Sec. 135.419 shall make an entry in the maintenance record of that equipment containing the following information:

- (1) The type of inspection and a brief description of the extent of the inspection.
- (2) **The date of the inspection and aircraft total time** in service.
- (3) The signature, the certificate number, and kind of certificate held by the person approving or disapproving for return to service the aircraft, airframe, aircraft engine, propeller, appliance, component part, or portions thereof.

**Sec. 91.417 Maintenance records**

(i) The **total time in service** of the **airframe**, each **engine**, each **propeller**, and each **rotor**.

(v) The current status of applicable **airworthiness directives (AD)** including, for each, the method of compliance, the AD number, and revision date. If the AD involves recurring action, the time and date when the next action is required.